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| 1 | | | | | 1 |
| 2 | | | | | 2 |
| 3 | | | | | 3 |
| 4 | | | | | 4 |
| 5 | | | | | 5 |
| 6 | | | | | 6 |
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# National Geographic Magazine

VOL. VIII JANUARY, 1897 No. 1

## THE GOLD COAST, ASHANTI, AND KUMASSI

By GEORGE K. FRENCH

The Guinea coast lies between the southern boundary of Sierra Leone and the delta of the tortuous Niger, in West Africa. It is a part of Africa that abounds in dark tradition and tragedy, and romance has never dared to trespass on its forbidding shore or penetrate its deadly swamps and jungle. It is a place where

ONE OF THE HUTS OF KING PREMPEH'S PALACE

*From a photograph by George K. French*

the fiercest and most selfish passions of man, white and black, have vented themselves for four centuries. The white slaver came here for his merchandise, the black slave-owner ashore supplied the trade, and if his barracoons were empty when a cargo was needed, a quantity of trade goods—rum, gin, cloth, and trinkets—accomplished his purpose in a moment. It was in very truth a survival of the stronger, and one native was as eager to sell his brother as he was to collect his pay from the native procureur.

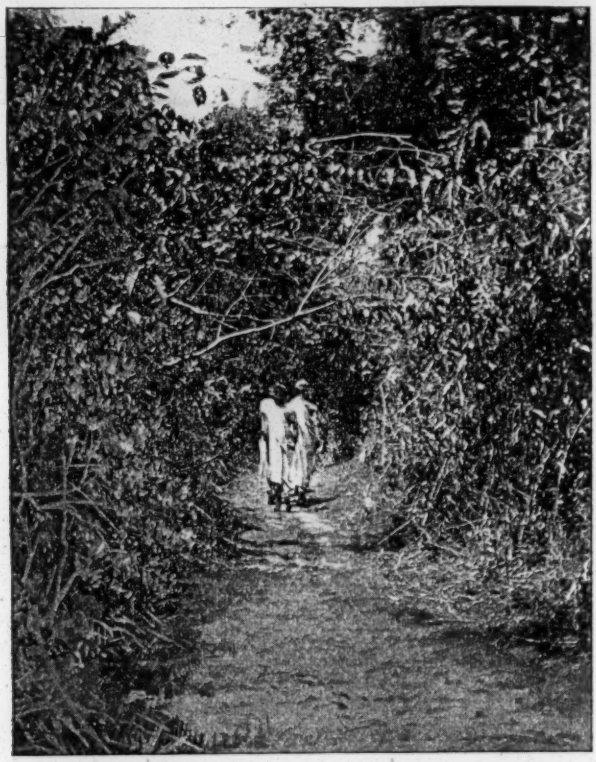
The old Grain coast is comprised within the Republic of Liberia, while the Ivory coast, now French territory, is adjacent on the southeast. The Slave coast extends from the Niger some 200 miles west to the Gold coast, the latter section of the Guinea coast lying between the old Ivory and Slave coasts. A hundred years ago these distinctive names were applied by all geographers, but today only the Gold coast is to be found on our maps. Three hundred and fifty miles of the latter coast belong to Great Britain, while the interior borders of the colony, of which this sea-coast forms one boundary, stretch away toward the north as far as the Ashanti country. Since the recent taking of Kumassi and the downfall of the Ashanti confederation the hinterland of the colony has been extended 100 miles further to the north.

Between the eastern and the western boundaries of the Gold coast the view presented from the sea is varied and picturesque. The shore is often girt with great rocks over which the surf breaks with tremendous force; again, a sandy beach, fringed with tall, spectral palms, which stand like mute sentinels guarding the approach to the forlorn shore, separates the ocean from salt lagoons and swamps of immense area, while in places the mouths of rivers reveal themselves by the presence of dangerous bars, over which the waters boil and seethe, affording fair warning of their existence to anxious mariners. The villages of the natives are discernible at frequent intervals, and a fair appreciation of architectural taste is evinced in the construction of their huts. Rectangular houses of swish, or adobe, sometimes with a second story, take the place of the rude huts of the Grain and Ivory coasts, and among these are interspersed the more pretentious residences of European traders, and forts which have been erected from time to time during the past four centuries.

As early as the middle of the fourteenth century the Gold coast was known to the European world, but not until 1471, when the Portuguese navigators, Juan de Santarem and Pedro Escobar

touched at a point on the coast which they called Oro de la Mina, was there any definite knowledge concerning it. In 1481 a large fort was erected at Oro de la Mina, or Elmina, as it is now called, by the Portuguese, and it stands today in an excellent state of preservation. The Dutch captured it in 1637, and held it until 1872, when it was transferred to the British. Other stations on the Gold coast, established between the end of the fifteenth and the middle of the present centuries by the Portuguese, Spanish, Danes, French, Dutch, and Brandenburgers, have finally become British possessions either by conquest or purchase.

Cape Coast Castle is eight miles east of Elmina. While the latter was under Dutch control it was the port of the Ashanti country, but since the expedition against King Kwofi in 1873–74, when a road through the dense forest was constructed to Kumassi



MILITARY ROAD FROM CAPE COAST CASTLE TO KUMASSI

*From a photograph by George K. French*

from Cape Coast Castle, the trade has followed this route, and thus the latter place has developed into a town of some commercial importance. Palm-oil, palm-kernels, ginger, gold-dust, mahogany, monkey skins, camwood, and rubber are exported in enormous quantities to England and the European continent from this port in exchange for rum, gin, cloth, trinkets, and other articles of European manufacture. The castle from which this last-named town takes its name was built by the Portuguese and taken by the Dutch in the seventeenth century, but since 1666 it has been a British possession. It is a spacious, strongly fortified, stone building, and back of it at a distance of two miles rise a series of heavily timbered hills, which have an altitude of eight or nine hundred feet. Between the fort and these hills lies the town. Akkra, the seat of government of the Gold Coast colony, is about sixty miles east of Cape Coast Castle. There are numerous smaller towns and trading posts along the coast, but their European population is limited to two or three traders and an occasional missionary.

The shore is difficult of access, as is the case along the entire Guinea coast; sand-bars block the mouths of rivers, and harbors are lacking; consequently passengers and cargo are discharged in boats through a heavy surf on a frequently dangerous beach, and many a human life and many a ton of valuable merchandise have been lost in the effort to effect a landing. These surf-boats are English built, of heavy timber, are twenty-eight feet long, six feet beam, and have long, overlapping bow and stern in order that they may surmount and not cut the breakers. A boat's crew is made up of eleven men and a coxswain. The latter steers with an ordinary long-bladed, straight oar or sweep, while the crew sit on the gunwales of the boat and propel it with paddles, the blades of which are fashioned not unlike a trident. The crew are almost naked, a loin cloth being the only attempt at clothing. They sing lustily while paddling, bestowing fulsome praise on the particular individual who has engaged them, and chanting vigorously of the amount of "dash," equivalent to the "bakshish" of the East, which he will probably shower upon them when they have landed him in safety.

The population of the Gold Coast colony, excluding the tribes of the Ashanti confederation, is roughly estimated at 2,000,000, of whom only about 150 are Europeans. There are many different tribes of natives, speaking various languages or dialects, but all belonging to the negro race. The tribes of the Fanti

confederation, who line the coast from Elmina to Akkra, deserve special mention as having from time immemorial been brought into close contact with the British. Of the natives who have migrated to the colony within the last fifty years, the most important are the Mohammedan Haussas, from the Niger districts of the interior, who man the ranks of the military police, and the Krumen, from the coast to the west. The latter are a most useful element, but are somewhat unstable, as they invariably return to the Kru coast as soon as they have earned a small competence. Most of the natives are still pagans, but the presence of Christian missionaries among them for the last fifty years has at least resulted in their modifying their fetich worship and savage rites. The Mohammedans on the Gold coast are, with the exception of the Haussas, mainly traders, and they are found in the larger settlements on the coast and along the trade routes of the interior.

The Fantis are an inoffensive, peace-loving, happy-hearted race, who readily succumbed to European aggression, but have been exceedingly loth to accept its civilization and Christianity. In common with the other natives of West Africa, with the exception of the Haussas and the Krumen, the Fanti is shiftless and will work only when it is absolutely necessary. Centuries of life without a want that nature did not lavishly supply have quite spoiled him for the advantages of civilization and its accompanying responsibilities, and it is no easy task to convert him to the ways of European life; yet he is tractable and readily governed, and the colonial official and trader find no great difficulty in utilizing him for many purposes. He has a full appreciation of justice, is honest, hospitable to strangers who approach him for no evil purpose, and has an absolute faith in the superior beauties and advantages of Fantiland, though to the white man it seems the dreariest and most hopeless place in the world, and official statistics prove it to be the most deadly spot on the face of the earth for the foreigner of every nationality. In the year 1895, for instance, the average European population of Cape Coast Castle was thirty-two. Of these, seventeen died during the first two months of the year from the malignant fevers which plague the coast at all seasons. It is true that, as a British colonial report apologetically states, it was a bad season on the coast, but the figures for every other year show an appalling death-rate among Europeans at all stations on the Slave and Gold coasts. So far as can be judged

from imperfect statistics, the Grain coast and the British colonies of Sierra Leone and the Gambia, and also the region between the Niger delta and the mouth of the Kongo, are by comparison less deadly, but this is indeed faint praise.

The stranger visiting the Gold coast will at first be sorely puzzled by the similarity of the names of the natives. Every child takes its surname from the week-day of its birth, and strangers theirs from the day of their arrival, with an additional sobriquet descriptive of some personal peculiarity. For instance, a child born on Wednesday receives the name of that day of the week, Kwako. Kwábina (Tuesday) and Kwako are held to be "strong days" of birth; but children that appear on Fridays, Saturdays, and Mondays are considered "weak as water." Nothing will induce the Fanti to sleep with his head toward the sea or to take possession of a new dwelling-house on a Tuesday or Friday, both these days being regarded as unlucky for this purpose. Paternal affection and filial love apparently do not exist. The mother nurses her child for one or two years, and then it must shift for itself. There is no appearance of affection even between husbands and wives, or between parents and children; and Duncan, an English traveler who visited the Gold coast fifty years ago, states that many parents offered to sell him their sons or daughters as slaves.

In common with many other natives of Africa, the Fanti lives in close communion with the vague and mysterious beings of the unseen world. A large proportion of his time is spent in consulting or appeasing the deities that inhabit the earth, the air, the sea, the rivers, and even trees, sticks, stones, and bits of cloth. If he is ill, he believes that his ancestors are summoning him, and he at once proceeds to consult the fetichman. The latter is given a fee and is requested to present the sick man's excuses to the expectant shades. These fetich priests generally exercise great influence over their superstitious fellows. Sometimes the departed is supposed to have returned to earth in the body of a child, and yet remaining in Deadland, thus giving rise to the assertion by some travelers that the doctrine of metempsychosis obtains among the Fantis. They bury their dead in their houses, choosing a room that can afterward be kept fastened up or secluded. This custom the colonial authorities have attempted to abolish on sanitary grounds, but the effort has not wholly succeeded. So much homage did the Egyptians pay to their dead, that it was said that they lived in Hades, rather than on the

THE KING OF ELMINA AND HIS COURT

*From a photograph by Skues, Cape Coast Castle*

banks of the Nile. So is it with the Fantis; constant sacrifices must be made to appease the departed and to remind them that they are not forgotten; and it is part of the Fanti belief that unless the custom is religiously observed the shade will wander on the banks of the Sacred Prah for the space of a hundred years before it has performed sufficient penace for its friends' neglect. Abonsam and Sasabonsam are the two great deities conjured up by the Fantis. The former controls the wicked in the land of shades, while the latter has his domicile on earth. Death is a matter of much moment, and extravagant "customs" are held and heavy expenses incurred by the deceased's relatives in order to satisfy the demands of the shade, these orgies frequently being repeated at intervals in order to "lay the ghost" in case it becomes restive. The rumbling of thunder is supposed to be the voice of the dead demanding propitiation and sacrifice, and lightning as the direct infliction of the evil spirit on the person or object struck. Mourning is evidenced by shaving the head for a certain period, and this is accomplished by bits of jagged stone or broken bottles.

There was a time when the Fantis were the most powerful tribe of the Gold coast, but during the last century they have

suffered so many crushing defeats from the Ashantis that they have lost their national spirit, and are regarded both by the British and by their hereditary enemies as arrant cowards. Land is held by individuals and families in severalty under well recognized rules, but boundary disputes are frequent, and are generally determined by the memory of the oldest inhabitants. The Fantis are good artisans and make musical instruments (instruments of torture they seem to the white man's ear), and iron implements for agricultural purposes, and they weave handsome cloths in narrow strips, which are sewn together so as to make them of any size required. Children go naked up to their ninth or tenth year. Men of the upper and middle classes wear robes of Manchester cotton, in exactly the same manner as the Romans wore the toga. Married women expose the upper half of the body and wear capacious cloths, which are deftly fastened about the waist and hang below the knees. Maidens cover the breast, and are much given to personal adornment.

As the shore is difficult of access from the sea, so Kumassi and the interior are difficult of access from the coast. The country lies in the forest belt of the continent, and the white man travels with difficulty. The native can wend his way along the narrow path, sleeping wherever nightfall may find him, and eating from his own supply of kenke, fûful, or plantain. But the white man must provide himself with hammockmen, if he would spare himself, and carriers to transport his food supplies and paraphernalia; in fact, the necessary preparations for a trip of a few hundred miles through the average African hinterland are quite as extensive as for a trip around the world by the regular routes of travel. For a week after landing at Cape Coast Castle in January of last year, I devoted my entire time to engaging carriers, hammockmen, and attendants. In this I was assisted by a Fanti youth of sixteen years, Amoah by name, who spoke fair English and a dozen native dialects in addition to his own tongue. His grandfather, a great war chief, enjoyed a pension of seven pounds a month from the British government for services rendered the colony in the Ashanti war of 1873–74, and this distinction gave Amoah superlative standing both in his own estimation and that of his friends.

The distance from Cape Coast Castle to Kumassi is 142 miles, and I pursued the identical route taken by the expedition of 1874 under Sir Garnet Wolseley. Prahsu, a town of not less

than 10,000 inhabitants, is situated on the Prah river, 72 miles from the coast, and this I reached at the end of ten days. The road from the coast to this point has been through the Assin country, a veritable wilderness of swamp and virgin forest, the monotony of which was broken only by great bamboo groves and by stagnant pools of fetid water. Villages of from 50 to 500 huts were passed at intervals of a few miles, and in all of them the inhabitants proved hospitable and honest. The Prah, which forms the southern boundary of the Ashanti country, is an insignificant stream whose course is frequently interrupted by rapids and shoals. In the dry season it is navigable only a short distance from its mouth, near Chama, 30 miles west of Cape Coast Castle. As water is a precious commodity on the Gold coast, particularly during the dry season, the natives have imposed the term "sacred" upon it, although it may have been in deference to the particular god which makes its habitat therein.

The path from Prahsu to Kumassi threads its way through the Adansai country. For days at a time the light of the sun never pierces the gloomy forest, and, although the traveler is thus protected from the fierce tropical heat, the damp atmosphere is most depressing. Forty miles south of Kumassi is the Monse or Adansai hill. Stanley, in 1873, roughly estimated its altitude at 1,600 feet, but recent observations determine it to be but 700. It is an abrupt elevation, and a hundred Ashantis with modern guns could easily repulse ten thousand adversaries from its rugged slopes and passes. On our fourteenth day out from the coast a small Ashanti village, within four miles of Kumassi, was reached. My carriers insisted upon stopping here for an hour in order to prepare for an imposing entry into the capital of the Ashanti kingdom. When we resumed our journey we found the physical features of the country changing rapidly. The forest had disappeared, and we passed along a narrow road, lined on either side with tall plantains and bananas, until we emerged into an open plain covered with stubble. Over this plain our path led for some two hundred yards, until the edge of the swamp which surrounds Kumassi was touched. A corduroy road made this easy of passage, and we soon found ourselves marching up a slight incline that broadened into a wide street or avenue which, as we afterward learned, was the main street of Kumassi. The first glimpse was disappointing. Travelers, from Bowditch to Winwood Reade, have described Kumassi as a city of pretentious houses, possessing a stone palace wherein the king lived in

ASHANTI WOMEN

*From a photograph by Skues, Cape Coast Castle*

great splendor, and containing a population variously estimated at from 40,000 to 100,000. But the first view convinced me that, whatever Kumassi may have been in the past, it was now but a poorly built town of a few thousand huts. Later and more careful observations confirmed me in this estimate.

Some writers assert that the Fantis and Ashantis originally occupied the country south of the Kong mountains, near the great bend of the upper Niger. The Mohammedan tribes drove them south as far as the coast, where they were forced to stop. As the two peoples undoubtedly sprang from the same stock, the natural boundaries of rivers and hills, among other causes unknown to African history, were probably the first dividing lines in their development as separate nations. The languages of both are derived from the Tshi tongue and differ in only a few words and idioms. Their customs, folk-lore and legends, supernatural deities and fetich worship, dress, and physical characteristics are almost the same, but the Fanti, through the civilizing influence of his contact with Europeans, extending over four centuries, has abandoned many of the savage practices which still obtain among the Ashantis.

For three centuries Ashanti has maintained its existence as a

confederation of powerful tribes, acknowledging as its only rival the neighboring kingdom of Dahomey. From the beginning of the seventeenth century down to the present time its history is replete with bloody wars and mercenary incursions on weaker tribes, and among the latter the Fantis have felt its merciless heel only too often. Great Britain has during the present century sent five expeditions against Ashanti, and, with the exception of the last one, with but little success. In 1824 Sir Charles McCarthy, governor-general of the British possessions on the Gold coast, led a large force of loyal natives as far north as Mansu, where the Ashantis gave battle. Sir Charles and his officers were captured and put to death, their bones being distributed among the Ashanti chiefs and sub-chiefs as talismans. Between 1824 and 1873 two other expeditions were dispatched against the Ashantis by Great Britain, but both of them were driven back to the coast. In 1874, however, Sir Garnet Wolseley marched straight into Kumassi at the head of only 1,400 troops, among whom were the 42d Highlanders, the famous "Black Watch" of the Indian mutiny; but, although Kumassi was sacked and burned, the expedition accomplished little beyond inspiring the natives with a high opinion of British valor.

ASHANTI CHILDREN

*From a photograph by George K. French*

A ROYAL PROGRESS IN WEST AFRICA — THE KING OF DADIASSI

*From a photograph by George K. French*

Toward the end of 1895 the once powerful Ashanti confederation had become greatly weakened by the open secession or wavering loyalty of its constituent tribes. These were ten in number, namely, Beckwai, Daniassi, Kokofu, Nkoranza, Dadiassi, Juabin, Mampon, Nquanta, Nsuta, and Kumassi. Only three of these, the most remote from the coast to the north of Kumassi, were openly loyal to the King of Kumassi, who held the throne or golden stool and was called the King of Ashanti. The other kings were quite ready to secede from the confederation, the unity of which was now about to be attacked and destroyed by British arms, and they were anxiously awaiting overtures from the coast. Such was the pitiable and humiliating condition of the "Ruler of Heaven and Earth" at this time. Proud and arrogant to the last, although abandoned by most of his followers, King Prempeh calmly awaited the approach of the little band of British soldiers, led by Sir Francis Scott, from Cape Coast Castle. He was, however, only a weak and misguided tool of the savage Queen Mother and a dupe of dishonest advisers, and he offered no resistance to his seizure, with some forty of his courtiers, and his removal to the coast, where he is now impris-

oned in Elmina castle. Thus Kumassi fell without the shedding of a drop of blood, though the deadly fever claimed its usual victims, among them being Prince Henry of Battenberg.

Kumassi is about three miles in circumference, oval in shape, and is surrounded by a noisome swamp. The main street runs north and south and is about a mile in length. It is less than thirty yards in width, and on either side are built the swish and thatch huts of the general aspect of those given in the accompanying illustration. Back of these two rows of huts are perhaps

DOMESTIC ARCHITECTURE OF KUMASSI

*From a photograph by George K. French*

three thousand other huts. Allowing six or seven inhabitants to each hut, the population may number, but can hardly exceed, 20,000. There seemed no regularity of direction or plan in the streets or passage-ways between the huts, and without a guide it would be difficult to find a given place. In the extreme south-eastern part of Kumassi, adjacent to the swamp, is the king's palace. It consists of a hundred huts grouped within a stockade thirty feet high. This stockade gives way in places to the walls of two- and even three-storied huts, evidently erected under the direction of European captives. The decorations on the walls

of the palace, both interior and exterior, are crudely worked in clay in faint bas-relief, and consist of grotesque figures of men and women, hybrids, with bodies of sheep, goats, elephants, snakes, deer, and leopards combined with heads and tails of monkeys, lizards, and alligators. On one hut I noticed the figure of a man holding in one hand a human head, evidently his own, as that member was missing from its proper place.

West of the main street and near its southern extremity is the Sacred Grove, so graphically described by Stanley and others, as it existed prior to 1874. Several hundred lofty cottonwood trees, scattered over a rectangular space four acres in area, thousands of bodies in all stages of decomposition and grinning skulls gleaming white from their resting-place, scores of vultures hovering above or perched on the limbs of the trees waiting for the next human sacrifice — such was the Sacred Grove at the beginning of 1896. Dynamite, however, had materially altered its appearance before I left Kumassi. The Great Executioner, an officer of high rank closely attached to the king's household, presided here in his gruesome work. While in recent years the practice of making human sacrifices in Kumassi has been greatly checked by European influences, the present executioner is chargeable with the taking of many thousands of human lives—a number variously estimated at from twenty to fifty thousand—during the thirty years of his tenure of office. Some time after the main body of the British expedition under Sir Francis Scott had returned to the coast the executioner was captured and held as a prisoner in Kumassi, the British authorities believing that he knew where the golden stool, the emblem of the king's office, was hidden. While he was thus detained I photographed him on several occasions, and the picture reproduced in this article is from the best of these.

On the return journey to the coast I diverged from the main route in order to visit the King of Beckwai. I found him living in pomp and splendor at the town of Beckwai, the population of which is about half that of Kumassi. It has no characteristics

dissimilar to those of the latter place. Lake Busumakwe, carefully explored in February, 1896, by Major Donovan, of the British army, I spent two days in exploring, but found nothing that Major Donovan had not noticed.

It is unnecessary to trace the real reasons that impelled the British government to subjugate Ashanti and annex it to the Gold Coast colony. A careful study of the history of the colony and its relations with its savage neighbors will throw much light on the subject; but it is proper to assert that England's enlightened policy in other parts of Africa will undoubtedly be applied here and will result in the ultimate spread of civilization throughout this darkest part of the dark continent. In this connection it seems proper to call attention to a map of the "British Possessions in West Africa," published in November, 1895, by Stanford, of London, whereon, before the expedition had left England, Ashanti was presented as a part of the Gold Coast colony. The same map gives the Half Cape Mount river as the boundary line between the English colony of Sierra Leone and Liberia, whereas it should have been the Manoah river, 50 miles further north.

THE KING OF BECKWAI AND HIS COURT

*From a photograph by George K. French*

# ALL AROUND THE BAY OF PASSAMAQUODDY

By Albert S. Gatschet,

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Travelers coming from the south will find in the deeply indented coast lands of the state of Maine a type of landscape differing considerably from others previously noticed. Through the fiord-like character of Maine's tidewater section the water element everywhere blends in with *terra firma*, which alternately projects and recedes, and by the well-marked color contrast between the blue ocean and the green or somber-hued earth strikes our sight agreeably. The level shore lands of the southern Atlantic states are here replaced by hills, headlands, and capes of bolder outlines, partly clothed in the fainter green of northern vegetation, while other elevations exhibit the rocky, ocean-beaten foundation upon which they are built. The dark-hued pine and fir trees, which in other countries live in the mountains only, here descend to the sea-coast, enlivening the tops and sides of the numerous islands which lie scattered along the coast. The further we proceed northeastward along the coast, the more the scenery assumes a northern character. This is well evidenced by the spare vegetation and the thinness of the humus which we notice everywhere in and around Passamaquoddy bay, an extensive basin, the waters of which are fed by the majestic St Croix river from the north and by the St George or Megigadevic river from the east. The mainland encompasses this bay on all sides, fringing it with rock-bound promontories and some flat sand spits; only on the southeast side does it open toward the Atlantic ocean, and there a row of islands forms its limit and affords numerous passages suitable for navigation.

The elevations encircling the bay of Passamaquoddy, though bolder than those we see further south, are mostly flat-topped and of tame outlines. They are nearing an incline of 20 to 30 degrees, and therefore the local erosion through the impact of rain is not very considerable. None of the hills or islands in the bay rise above sea level more than about 300 feet. A feature that may be pertinently called the *headland shore* is prominent here.

Whenever a portion of the mainland or of one of the larger islands in this region advances toward the salt water it first

sinks down, forming a depression, and then rises as a knoll or rounded hillock or hill before it plunges its rocky face abruptly into the ocean. These formations, appropriately termed *heads* or *headlands*, are frequent all around Passamaquoddy bay, Campobello island, Cobscook bay, and in many other sections of the Maine and New Brunswick coasts. Beaches filled with coarse gravel, the detritus of the rocky shores, form the transitory stage between the headlands and the more level promontories or *points*. Not infrequently one headland succeeds another in a line before reaching the water, and even after reaching the shore they reappear, jutting out from the briny element, two or three in succession, and lying in one continuous file. This I have observed, *e. g.*, on the north shore of Cobscook bay, west of Eastport, Maine. Campobello island, New Brunswick, is replete with "heads" on its far-extending shores, the island being eleven miles long from north to south; thus we have Bald head, Wilson head, East Quoddy head, Friar's head, Head harbor—whereas the term "point," less frequent there, appears in more numerous instances on the west side of the bay and up the St Croix river.

Two large *whirlpools*, perceptible in the channel of the St Croix river, are objects of great curiosity to the strangers visiting these parts. One of them occurs between Moose island and the southern end of Deer island, New Brunswick; the other, of minor proportions, lies two miles above, the river being over one mile wide at each place. They are carefully avoided by people passing, either in a white man's boat or in the Indians' canoe, for, like Charybdis of old, they are liable to capsize any small craft that ventures to come too near. They owe their existence not exclusively to the shock produced by the impact of the currents from the bay meeting those of the river, but also to the incoming tides and to a difference of temperature between the two bodies of water.

The air temperature is generally low on the bay and around it. Winter begins in October, and even at midsummer persons who are not provided with warm clothing will often feel a chill pervading their system when a sudden breeze breaks in from the north or a thick fog stays till noontime over the ever-moving waters. The weather is generally serene throughout the year, but nevertheless morning fogs are of frequent occurrence.

The Canadian Pacific is the only railroad company that brings visitors to the hospitable shores of Passamaquoddy bay, but there are numerous steamboats plying between St Andrews, St Stephen, Calais, and Eastport and the neighboring cities of St Johns,

Bar Harbor, and Portland. Whether the tourist visits these parts for sightseeing or for restoring impaired health by the aid of their bracing sea-breezes, he is sure to take a peculiar interest in the native Indians, whom he sees peddling their neat baskets and toys along the streets, on steamboats, and on hotel verandas. But little attention is needed to scan the Indian among a crowd of people by his dusky complexion and a sort of nonchalance in his deportment. His appearance and habits show him to be a living and moving survival from prehistoric times.

The Passamaquoddy Indians of Maine constitute a portion of the northeastern or Abnáki group of the widespread Algonkinian stock, of which the ancient domain extended over a large area of the United States and Canada. The Abnáki Indians now surviving are divided into five sections, among which (1) the *Penobscots* in Oldtown are the nearest affinity in language and race to the (2) *St Francis Indians* of Canada; (3) the *Passamaquoddies*, whose nearest kinsmen are (4) the *Milicites*, or Etchemins (this is their Micmac name), scattered along the St Johns river, New Brunswick; (5) the *Micmacs*, settled in Nova Scotia and on the east coast of New Brunswick.

The present Passamaquoddies are about five hundred in number, and a large intermixture with white blood has taken place, which according to a safe estimate may amount to one-third of the tribe. In about the same proportion they have also preserved their Indian vernacular, which among its European loan words counts more of English than of French origin. Many of these natives exhibit unmistakably the full physical marks of Indian descent—the long, straight, and dark hair, the strong nasal bone, and a rather dark complexion. The cheek-bones are not very prominent. The majority of the tribe are slim-built and of a medium stature. They are not increasing, and their Indian congeners on the Penobscot river are positively on the decrease.

No central chief rules over these Indians now, but each of their three settlements in Maine has a sagum or elective governor. These settlements all lie on watercourses or on the seashore. The one nearest to Eastport is at Pleasant point, near the town of Perry; another is in a suburb of Calais, and a third one formerly lived upon Lewis island, but transferred its seats to the neighboring Peter Dana's point, near Princeton, on the Kennebassis river, about 42 miles north of Eastport. Fishing is one of their chief industries, but in this they now follow entirely the example set by the white man; they care nothing for agriculture, and their village at Pleasant point is built upon the rockiest and

most unproductive ground that could have been selected. The same may be said of some other Indian settlements, for many Indians do not require any better soil to rest their houses upon.

The industries now forming their main support are the manufacture of toy boats from birch bark, of fishing canoes from the same material, of fans from ash-wood, and, chiefly, of ornamental and fancy baskets from the wood of the yellow ash. The baskets are made by the women, and during the summer season the men sell them in the markets, especially at the watering-places and in the commercial centers of the eastern states. The women display a high degree of taste in selecting their models for these tiny, elegant, and delicate art-products. The ash-wood is split into splints or blades of extreme thinness by machinery, seldom wider than an inch, then dyed in all possible, but always bright, colors. After this the splints are interlaced so as to form baskets of the most varied shapes. During the work of interlacing, blades of sweet-scented grass are inserted in the baskets, and thus "finished" they are sent to the stores with a fragrant odor, which clings to them for months and increases their salability.

The present area of the Passamaquoddy dialect is confined within a small district in Washington county, in southeastern Maine, and limited to the three settlements already mentioned. We may, however, add to it the area of the Milicite or "Broken language" dialect, which is heard in five or six Indian villages on the St Johns or Ulastuk river, in New Brunswick, and differs but little from Passamaquoddy. In former centuries these two dialectic areas were much more extensive, the proof of this resting in the spread of geographic names worded in Passamaquoddy over the whole of Washington and Hancock counties, a part of Aroostook county, Maine, and over the western part of the New Brunswick territory. Just as large as this historic area was that of the Penobscot dialect, for, as the local names still demonstrate, it embraced the whole Penobscot river basin, with the valleys of its numerous tributaries.

Inquiry into the signification of historic and actual geographic names of Indian origin has of late become popular among the educated classes of Americans. It is just twelve years since Charles Godfrey Leland encouraged those who might be able to accomplish the task to solve the riddles contained in the names of that country, most of which have a sound so musical and harmonious.* Long acquainted with the great historic value of

*The Century Magazine, New York, 1884, vol. 28, pp. 668-677, in Leland's article: "Legends of the Passamaquoddies."

topographic names, Leland's suggestion induced me, while studying the dialect, to listen to the opinions of capable Indians when I requested them to interpret a series of these names. Many interpretations thus obtained were so crude and ungrammatic that they could not be sustained for a moment; but the majority of those resting on a correct linguistic basis disclosed the fact that they are mostly compound nouns and combinations either of two substantives or of an adjective and a substantive, with the substantive standing last. In the first case, the noun standing first is sometimes connected with the noun standing second by the case-suffix *i*, as in Edu'ki m'ni'ku, *Deer island*, from ĕdûk, *deer*. The local names around the bay mostly refer to the watery element, for the terms *beach*, *sand-bar*, *cliff*, *rocky shore*, *island*, *headland*, *point*, *bay* and *cove*, *current* and *confluence* make up almost the whole terminology of the region. The frequent ending *-k* (-ăk, -ĭk, -ŏk, -ûk) sometimes marks the plural of a noun considered as animate, but more frequently it is the *locative case-ending* observed in all Algonkinian dialects under various forms. This case-suffix corresponds minutely to our prepositions *at*, *in*, *on*, *upon*, *at the place or spot of*. It also obtains in the Penobscot and Milicite dialects; but in the southwest corner of Maine occur a number of geographic names in *-et*, *-it*, *-ot*, which approximates the dialect in which they originate to that of Massachusetts and of Eliot's Bible. So we meet there with names like Abadasset, Harriseekit, Manset, Millinoket, Ogunquit, Pejepscot (Sheepscot), Webhannet, and Wiscasset. The name Penobscot cannot be adduced here, for its original form in that dialect is Panawámpskek, "where the conical rocks are."

The *Indian names* of elevations, rivers, and localities are in this article spelt in a scientific alphabet in which the vowels possess the value of and are pronounced as they are in the languages of the European continent.* To readers it will soon appear how inconsistently the Indian names were rendered by the American and British natives in their pronunciation and how often parts of them were dropped entirely. These Indian names are generally easy to pronounce for Americans; still, Algonkinian dialects have a tendency to drop vowels when standing between consonants at the beginning of words. This causes a peculiar difficulty of utterance, and makes some of them unpronounceable to a majority of English-speaking people.

*g is always hard and ŭ has the sound of *e* in *bucket*.

## A LIST OF INDIAN GEOGRAPHIC NAMES OCCURRING AROUND PASSAMAQUODDY BAY, MAINE, WITH THEIR DERIVATIONS

**Bar Harbor**, Mount Desert, and Mount Desert island are all called in Indian Péssank or Péssan, "at the clam-digging place or places;" from ess, "shell," referring here to the clam only; p- prefix, -an verbal ending.

**Bay of Fundy**, a storm-beaten corner of the Atlantic ocean between Nova Scotia and New Brunswick, is to the Indians Wekwabegituk, "waves at the head of the bay," -tuk referring to waters driven in waves or moved by the tide. Nowhere else in the world are the tides so high as in this bay. (See Oak bay.)

**Bishop's point**, a locality on north head of Grand Manan island, New Brunswick. Its Indian name, Budebé-uhigen, means death-trap of whales, from budebé-u, "whale"; -higen, a suffix which stands for "tool" or "instrument."

**Campobello island**, New Brunswick, is called Ebagwídek, from its position between Maine and the mainland of New Brunswick, "floating between;" éba, between; gwiden, floating. Another Indian name for this island is Edlitik, which seems to refer to the sudden deepening of the waters on the west side.

**Cherry island**, a rocky formation just south of Indian island, New Brunswick, is known to the native Indian as Mísik nĕgúsis, "at the little island of trees." Mísi is "tree" or "trees;" misik, "where trees stand;" nĕgú, abbreviation of m'níku, "island;" -sis, diminutive ending.

**Cobscook bay**, a body of salt water lying west and southwest of Moose island. It is the Indian term kápskuk, "at the waterfalls." The tide, rising here daily to about twenty feet, enters into the sinuosities of the shorelands, and the waters returning to the ocean form rapids, riffles, or cascades (kápsku).

**Deer island**, New Brunswick, a large isle at the southern extremity of Passamaquoddy bay, is Edúki m'niku, "of the deer the island."

**D'Orville's head**, eminence where St Croix river empties into Passamaquoddy bay; Kwagustchus'k, "at the dirty mountain;" from kwagwéyu, "dirty;" tchús, "mountain;" -k, locative particle, "at." The name was long ago corrupted into the more popular "Devil's head."

**Eastport, city and harbor**, has the same Indian name as *Moose island*, upon which it is built, Muselénk. This is a corruption from the hybrid compound Mús-ĕländ'k, its second half being a corruption of *island*, with the locative -k appended. The locality where the las moose was killed, about a century ago, lies on its northern part. The genuine Indian name for Moose island is Mús m'níku. The Moose islanders (and the Eastport people especially) are called Musĕléniek.

**Eel brook**, a small rivulet at the northern end of Grand Manan island, is in Indian Katekádik, which stands for Kat-akádik, and signifies "where (-k) eels (kát) are plentiful (akádi)."

**Gardner's lake**, in Machias township, is called Némdamsw' águm, the term némdam designating a species of fresh-water fish rushing up brooks and channels (ném, *upward*); águm, "lake."

**Grand Manan**, New Brunswick, a large island with high shores, south of Passamaquoddy bay, is the Menanúk of the Indians. The name probably signifies "at the island" in the Micmac dialect.

**Herring cove**, a large sea-beach on the east side of Campobello island, facing Fundy bay and Grand Manan island, is called Pitchamkíak, "at the long beach;" pitchéyu, *it is long;* ámk, *gravel;* -kie, *beach;* locative case, -kíak. This cove has lately been made accessible by a good road leading to it from the Tyn-y-coed hotel, and with its picturesque views and its multicolored pebbles forms quite an attraction to visitors.

**Indian island**, New Brunswick, forms a narrow strip of one and a half miles' length at the southwestern entrance to Passamaquoddy bay, and was inhabited by these Indians before they crossed over to Lincoln's point and Pleasant point, Maine. They call it Misik-nĕgús, "at the tree island." The name of Cherry island (q. v.) is a diminutive of this.

**Kendall's head**, a bold headland in northern part of Moose island and facing Deer island, New Brunswick, upon the "western passage" of St Croix river, is called by the Indians Wabígeněk, or "at the white bone," or Wabígĕn, "white bone," from the white color of a rock ledge on its top; wábi, *white;* -gen or -ken, *bone;* -k, *at.*

**Kunaskwámkuk**, abbreviated frequently into Kunaskwámk, is a comprehensive name given to the town of St Andrews, New Brunswick, to the heights above and north of it, where the Algonquin hotel is erected, and to the coast between St Andrews and Joe's point. The name signifies "at the gravel beach of the pointed top;" kuná, "point," referring to a sandbar projecting into the bay; kunaskwá, "pointed top or extremity;" ámk, "gravel," and here "gravelly beach;" -uk, locative ending, *at, on, upon.*

**Lubec**, a village south of Eastport, at the narrows between Campobello island and the mainland of Maine, is called Kebamkíak, "at the beach forming the narrows." Kebé-ik means "at the narrows," and is the same word as the Cree and Montagnais: Kébek, *Quebec*, in Canada; -kíak is the locative case of kie, "at the beach or beaches."

**Machias** and **East Machias**, two towns on the southern trend of the Maine coast, in Washington county, which were settled from Scarborough, in Maine, represent the term metchiéss, *partridge.*

**Meddybemps village** and **Meddybemps lake**, drained by Dennys river, Dennysville township, are called after a fresh-water fish, mĕdebéss'm, or the *hanpout.*

**Moose island.** (See Eastport.)

**Moosehead lake**, in the interior of Maine, Piscataquis county, is called in Passamaquoddy Ktchi-ságuk, "at the wide outlet." A literal translation of the English name would be Musátp ágĕmuk; mús, "moose deer;" -atp suffix referring to "head;" ágĕmuk, "at the lake." Chesuncook is in *Penobscot* dialect the name of a lake to the

northeast of Moosehead lake, and signifies "at the big outlet," Ktchi-sánkuk.

**Mount Katahdin**, on Penobscot river, though its name is worded in the Penobscot dialect, may be mentioned here as signifying "large mountain;" the syllable kt- is equivalent to ktchí, "large, great, big;" ad'ne, ad'na, is "mountain." The Penobscot Indians pronounce it Ktă'd'n (*a* short); the Passamaquoddies, Ktād'n (*a* long).

**Norumbega** is the alleged name of a river and some ancient villages or Indian "cities" in Maine, spelled in many different ways, but never located with any degree of certainty. The name does not stand for any Indian settlement, but is a term of the Abnáki languages, which in Penobscot sounds nalambígi, in Passamaquoddy nalabégik—both referring to the "still, quiet" (nala-) stretch of a river between two riffles, rapids, or cascades; -bágik, for nipégik, means "at the water." On the larger rivers and watercourses of Maine ten to twenty of these "still water stretches" may occur on each; hence the impossibility of determining the sites meant by the old authors speaking of these localities. *Narantsuak*, now Norridgewok, on middle Penobscot river, has the same meaning.

**Oak bay**, a large inlet of St Croix river, east of the city of Calais, is named Wekwáyik—"at the head of the bay."

**Passamaquoddy bay**, according to its orthography now current, means the bay where pollock is numerous or plentiful. The English spelling of the name is not quite correct, for the Indians pronounce it Peskédĕmakádi pekudebégek. Peskĕdem is the pollock-fish or "skipper," "jumper;" called so from its habit of skipping above the surface of the water and falling into it again; -kadi, -akadi is a suffix, marking plenty or abundance of the object in question. (Cf. the name Acadia, derived from this ending.) There are several places on the shores of this bay especially favorable for the catch of this food-fish, like East Quoddy head, etc, as mentioned previously in this article. Quoddy, the abbreviated name now given to a hotel in Eastport, should be spelt: Kadi or Akádi, for there is no *u*-sound in this Indian term, and it would be better to write the name of the bay, if scientific accuracy is desired, "Peskedemakadi bay."

**Pembroke lake**, a long water sheet, stretching from northwest to southeast, is in Indian Imnakwan águm, or "the lake where sweet tree-sap is obtained." Mákwan, or "sweet," stands for the liquid sugar running from the sugar maple in season. Agum means "lake."

**Pleasant point**, Indian village on the western shore of St Croix river, is called Sibá-ik, Sibáyik: "at the water-passage, on the thoroughfare for ships *or* canoes," which refers to the sites just south of the "point."

**Princeton**, a village on the Kennebasis river, south shore (an affluent of the St Croix river from the west), is called Mdakmíguk, "on the rising soil;" from mdá, "high, rising," and kmígu, an abbreviation of ktakmigu, "land, soil, territory."

**Red Beach**, on west shore of lower St Croix river, Calais township, above Robbinston, is named Mekwamkés'k, "at the small red

beach;" from mékw(a), "red;" ámk, "beach;" -es, diminutive ending, "small, little," and 'k, -ûk, locative case suffix, "at, on."

**Schoodic** or **Skúdik**, "at the clearings," is a topographic term given to the Schoodic or Grand lake, on headwaters of St Croix river; also to the St Croix river itself, and to the town of Calais, built on its lower course. That these clearings were effected by burning down the timber appears from the term itself; for skwút, skút means *fire*, and the name really means "at the fire." Another *Skúdik lake* lies in the southeastern corner of Piscataquis county, Maine.

**St Croix river**, in Indian Skúdik síp, "the river of clearings;" from the clearings on its shores or on the *Skúdik lake*, where the river takes its origin. For a long distance it forms the frontier between Maine (Washington county) and New Brunswick. The French name, "Holy Cross," came from a cross erected by early French explorers.

**St Francis river**, in Canada, Ontario province, upon which Indians cognate to the Penobscots of Maine are living, is called by them Lesigantuk, a contraction of Ulastigán-tuk. The same name is given to their village and to the natives themselves.

**St George** and **St George river**, emptying into the northeast end of Passamaquoddy bay, are just as well known by their Indian name, Megigadéwik, "many eels having;" from mégi, *many;* gat or kat, *eel;* -wi, adjectival ending; -k, locative case suffix.

**St John river**, running near the western border of New Brunswick and its large tributary, the Aroostook, are both called in Penobscot and in Passamaquoddy, Ulastúk, "good river," meaning river of easy navigation, without cascades, falls, or rapids; from úla, wúli, *good;* -tuk, tidal river and waters driven in waves.

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## RETURN OF THE HOURST NIGER EXPEDITION

The great geographical event in France just now is the return of the Hourst Niger expedition. The object of the mission was to survey the Niger, especially that part of the river which flows through French territory. As will be remembered, the Anglo-French agreement of 1890 made the boundary between the French and English "spheres of influence" a line starting from Say and running eastward to lake Chad. The upper Niger being unknown, the French government decided to send an expedition, and the occupation of Timbuktu by the French made it imperative. Accordingly the expedition was organized and placed under the command of Lieut. Hourst of the navy, his companions being Father Hacquard, a man of imposing appearance and well versed in Arabic and especially Tuareg dialects; Beaudry, senior midshipman; Bluzet, a lieutenant of marines, and Dr Taburet; in all five young men whose combined ages would hardly make 140 years.

The party started in August, 1895, and has just returned. The expedition was a complete success. The river has been duly studied and surveyed by competent men; about 45 meters of maps were brought back;

hostile tribes of wild Tuaregs were visited and friendly intercourse established (this was due mainly to Father Hacquard); not a man, white or black, has been killed; in fact, not a shot was fired (this is characteristic of French explorations anyhow), and the five men returned safe and sound. The maps which they bring will soon be published. The party, in three boats, descended the Niger from Timbuktu to its mouth, in spite of the rapids of Bussa, always declared impassable by the English Royal Niger Company. One of the boats was of aluminum and the other two were dug-outs.

An interesting and amusing incident of the trip is told as follows: When the celebrated Barth visited that part of the Sudan he was accompanied by a Tuareg interpreter called Backhay, who saved Barth's life. When the great traveler left, Backhay prophesied that a son of Barth would some day visit the Sudan. Accordingly when Hourst appeared he was asked whether he was not Barth's son, and the lieutenant, not knowing just what that meant, said that he was Barth's nephew. When the history of the western Sudan is written up the Hourst expedition will certainly receive more than a passing notice.

ERNEST DE SASSEVILLE.

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## GEOGRAPHIC SERIALS

*The Geographical Journal* for November contains a valuable paper by Major Leonard Darwin on Railways in Africa, in which the author suggests the railway system necessary to supplement the facilities afforded by the rivers for commerce. It contains also the narrative of a Journey around Siam, by J. S. Black, of a Journey in the Valley of the Upper Euphrates, by Vincent W. Yorke, and from Teheran towards the Caspian, by Lieut. Col. Henry L. Wells. There is also a review of De Morgan's Mission Scientifique to Persia, by Major General Sir Frederick J. Goldsmid. The December number is a notable one. It begins with the presidential address of Sir Clements Markham. Arthur Montefiore Brice contributes a long and extremely interesting article summarizing the work done by the Jackson-Harmsworth Polar Expedition during the last year. It is accompanied by a map summarizing the discoveries made by this expedition. Prince Henri d'Orleans gives the narrative of his journey from Tonkin to Assam. Commander H. E. Purey-Cust describes the Eruption of Ambrym Island in the New Hebrides in 1894. This article is accompanied by maps and illustrations. Other articles are "An Attempt to Reconstruct the Maps Used by Herodotus" and "The Surface of the Sea and the Weather."

*The Scottish Geographical Magazine* for November contains notes on the Yukon country, and particularly that part of it which adjoins the boundary between Canada and Alaska, including the Forty Mile district, and the region about Juneau, by Alexander Begg. The subject of geographical education is continued by Prof. A. J. Herbertson. Much prominence has been given to this subject by the Scottish Magazine in its recent

issues. The December number contains an article by W. Eagle Clarke on Bird Migration in the British Isles. The most important article is one summarizing the work of M. V. L. Seroshevski on the Country of the Yakuts—*i. e.*, northern Siberia. It is an admirably condensed description of a little-known region.

The quarterly *Bulletin of the American Geographical Society* for October opens with an article by Prof. I. C. Russell, of the University of Michigan, entitled "Mountaineering in Alaska," which is in substance an account of the author's last trip to the St Elias region. The bulletin also contains an article by Franz Boas on the Indians of British Columbia and on a Graphic History of the United States by Henry Gannett.

*Appalachia*, the journal of the Appalachian Mountain Club, devotes a large part of its November number to Philip S. Abbot, one of its members, whose lamented death in the Canadian Rockies was noticed in THE NATIONAL GEOGRAPHIC MAGAZINE for the same month. Other articles are entitled "Ascents near Saas, Switzerland," "Grand Cañon of the Tuolumne," "Exploration of the Air," and "Notes on a recent Visit to Katahdin." H. G.

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## GEOGRAPHIC NOTES

### NORTH AMERICA

CANADA. Of the 21,341 immigrants who arrived in Canada last year, 14,197 declared their intention to settle in the Dominion.

MEXICO. The coffee crop of 1895 amounted to 24,100 tons, of which Oaxaca furnished 9,610, Veracruz 8,817, Chiapas 1,962, and Puebla 1,256 tons. These four states have doubled their production since 1892, and they contribute 90 per cent of the entire crop. The best Mexican coffee is a variety of mocha, and the second best, known as myrtle, is similar to java. Trees in full bearing yield on an average about 24 ounces of coffee per annum, but some run as high as 60 to 80 ounces. The methods of curing and the quality of the product are steadily improving.

### SOUTH AMERICA

The ascent of Aconcagua, the highest summit of the Andes, is being attempted by a scientific expedition under the direction of Mr E. A. Fitzgerald, who recently returned from his explorations in the New Zealand alps. The exploring party are well equipped, the sum of £5,000 having been made available for the expedition.

ARGENTINA. A recent report of the Argentine Census Bureau shows the de facto population of the republic on May 10, 1895, to have been 4,042,990, to which number an addition of 50,000 is made for persons temporarily absent from the country. This shows an average annual increase of 4.6 per cent since 1869. The city of Buenos Ayres contains 663,854 inhabitants, of whom 345,393 are foreigners.

EUROPE

ENGLAND. Dr Nansen's lectures are attracting large audiences, notwithstanding the very high prices charged for admission.

Although the traffic receipts of the Manchester ship canal for 1896 show a large increase over those for 1895, the diversion of trade has made no appreciable impression upon the revenues of the port of Liverpool.

FRANCE. The Paris Academy of Sciences has awarded one of the two Arago medals to M. D. Abadie, the Abyssinian explorer, and a prize to Prince Henry of Orleans for his explorations.

GERMANY. 7,531 steamships and 9,023 sailing vessels passed through the North Sea and Baltic canal during its first year. The receipts from tolls fell far short of the official estimates.

ASIA

JAPAN. The German consul at Yokohama reports that a general rise in the cost of living as well as in the scale of wages is already decreasing the danger of Japanese industrial competition with European nations.

INDIA. The production of coal has increased 55 per cent in a single year and has almost quadrupled in ten years. The imports are also increasing rapidly, and as coal is not used for domestic purposes, its increasing consumption points to that expansion of manufacturing industries of which there are so many other indications. An illustration of the maxim that the trade follows the flag is found in the fact that 86 per cent of the tonnage that entered the ports of India last year was British.

AFRICA

TRANSVAAL. It is believed that of the public revenue for the current year, estimated at £4,462,193, the Uitlanders will pay £3,500,000.

WEST AFRICA. Telegraphic dispatches announce that ex-King Prempeh and his relatives and attendants have been removed to Sierra Leone.

— A British officer has just returned from an important mission, occupying five months, to the north and northwest of Kumassi, having traversed the entire distance of 900 miles on foot. He reports the country as exceedingly rich in mineral and vegetable products, gold, rubber, kola-nuts, and mahogany being abundant.

## MISCELLANEA

In a paper read last month before the Royal Geographical Society, Col. J. K. Trotter, R. A., who was the principal British officer of the Anglo-French Delimitation Commission appointed in 1895, stated that the commission were disappointed at finding the sources of the Niger at so low an elevation, the highest recorded being 3,379 feet. The adjacent country was mountainous, but none of the summits exceeded 5,000 feet.

The Proceedings and Transactions of the Queensland Branch of the Royal Geographical Society of Australasia contain, among other articles,

a Résumé of Capt. Cook's First Voyage Around the World, by Gen. Sir Henry W. Norman; a summary history of Arctic exploration, by Major A. J. Boyd, and the narrative of Capt. G. A. Tennefather; also Exploration of the Coen, Archer, and Batavia Rivers and of the islands of the western coast of Karpantaria, by the same author.

The Weather Bureau has recently issued Part 3 of the *Report of the International Meteorological Congress* held at Chicago in 1893, in connection with the World's Columbian Exposition. It contains brief papers upon the climates of various parts of the world, commencing with that of the United States, by Prof. H. A. Hazen. Under the title of "Instruments and Methods of Investigation" are described many of the latest adaptations of instruments for special work, including "Observations of Solar Radiation" and "The Study of the Upper Atmosphere by Means of Balloons from Mountain Stations, and from Cloud Observations."

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## PROCEEDINGS OF THE NATIONAL GEOGRAPHIC SOCIETY, SESSION 1896-'97

*Special Meeting, December 4, 1896.*—President Hubbard in the chair. Admiral R. W. Meade, U. S. N., delivered an address, with lantern-slide illustrations, descriptive of a Winter Voyage through the Straits of Magellan, with Visits to Rio Janeiro and Valparaiso.

*Regular Meeting, December 11, 1896.*—President Hubbard in the chair. President David Starr Jordan, Ph. D., of the Leland Stanford Junior University, read a narrative entitled "Matka: a Story of the Mist Islands." This story, the life history of a fur-seal family (the members half personified), was followed by a series of lantern-slide illustrations of scenes in the Pribilof islands.

*Special Meeting, December 18, 1896.*—Secretary Hayden in the chair. Geo. M. Sternberg, M. D., LL. D., Surgeon-General of the Army, read a paper on the Etiology and Geographic Distribution of Infectious Diseases, afterwards exhibiting a series of lantern-slides illustrative of the subject.

ELECTIONS.—New members have been elected as follows:

*November 25.*—G. W. Bacon, F.R.G.S., Gen. Samuel Breck, U.S.A., Col. Chas. Chaillé-Long, A. W. Cowles, Prof. Thomas Davidson, Walter R. Davies, J. P. Earnest, Col. M. J. Foote, Henry S. Graves, Lieut. T. D. Griffen, U.S.N., Mrs Bella Kilbourn-Bourgeat, Miss Elizabeth A. Riley, F. P. Schumann, C. E., Mrs Emma Triepel, Miss Alice Twight, M. Gregory de Vollant (Russian Legation), Geo. H. Warner, John H. White.

*December 11.*—Dr Aaron Baldwin, John S. Blair, Prof. Frank M. Comstock, Dr Ira W. Dennison, Rev. Geo. A. Dougherty, Dr L. W. Eugster, Fred. L. Fishback, Señor Don Domingo Gana (Chilean Minister), Prof. Wm. H. Goodyear, Lee R. Grabill, C. E., Miss Edith S. Hancock, Hon. M. A. Hanna, Henry L. Haven, John J. Heron, Hon. S. G. Hilborn,

M. C., R. H. Hood, David Hutcheson, Henry Clay Johnson, William D. Kelly, Miss Mary A. Law, Capt. S. C. Lemly, U. S. N., J. E. Luckett, Col. Geo. G. Martin, Wm. W. Neifert, Lieut. H. C. Poundstone, U. S. N., L. M. Prindle, Hon. Redfield Proctor, U. S. S., Mr von Reichenau (German Embassy), Bushrod Robinson, Señor Don J. D. Rodriguez (Minister, Greater Republic of Central America), Geo. Otis Smith, Prof. A. W. Spanhoofd, T. W. Stanton, John J. Stephens, Capt. C. A. Stevens, Dr Chas. Swisher, Lt. Comdr. E. D. Taussig, U. S. N., Hon. E. O. Wolcott, U. S. S.

*December 30.*—Geo. H. Baker, Jas. A. Barwick, Marcus W. Bates, John D. Blagden, W. L. Blunt, H. B. Boyer, A. von Breuning, Prof. J. P. Byrne, Henry Calver, Prof. R. A. Dobie, Dr Geo. A. Dorsey, Prof. J. Fairbanks, Count A. Goetzen (German Embassy), Prof. R. R. N. Gould, Arpad Grossmann, Hon. F. M. Hatch (Hawaiian Minister), Edwin B. Hay, Med. Director A. A. Hoehling, U. S. N., Corliss W. Lay, Prof. E. H. Mark, Frank E. Pyne, Prof. A. W. Riggs, James A. Scott, Dr Z. X. Snyder, Joseph Stewart.

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## THE NATIONAL GEOGRAPHIC SOCIETY

### SYNOPSIS OF A COURSE OF LECTURES ON THE EFFECTS OF GEOGRAPHIC ENVIRONMENT IN DEVELOPING THE CIVILIZATION OF THE WORLD

The National Geographic Society has for several seasons given three courses of lectures, a technical course and two popular courses; the former by officers of the Army and Navy and distinguished scientists in different departments of the Government, the latter by leading exponents of original investigation of subjects pertaining to geographic research.

It is the intention that each speaker in the popular course shall be a recognized authority on the subject treated by him, and that each lecture shall be illustrated by stereopticon views, which have been found to add not only to the interest but also to the value of the lectures.

The average attendance at the popular lectures has increased steadily from 500 in 1893–94 to 800 in 1894–95, and to 1,000 in 1895–96. The audience is composed of members of the Society and their friends, comprising many of the most cultured residents of Washington, senators and representatives, scientists and students. The second course of lectures has been held on Monday afternoons. Two years ago the subject was a trip over the Northern Pacific Railroad to the Pacific ocean, returning via San Francisco, the cañons of the Colorado, and the Rocky mountains. Last year it was a trip through Canada and the inland passage to Alaska.

For the popular course of 1896–97 the subject selected is the effects of geographic environment in developing the civilization of the world. The course opens with prehistoric man and the beginnings of history, and passes on to the period of our earliest definite knowledge in those countries where the history of our race begins. At this epoch geographic

environment exercised a controlling influence on life, character, institutions, and religion; it was the primary if not the sole cause of development in the transition of man from savagery through barbarism to civilization. The same cause continued to influence the successive stages of civilization, though as man advanced in knowledge and intelligence he became more and more independent of his surroundings. Even now they influence him in various ways.

The first lecture will be of a general character, showing prehistoric man, the beginnings of industries (such as agriculture and the domestication of animals), of institutions and religion, and of the acquisition of real and personal property, and will be delivered by the President of the Society.

We look for the earliest civilization where the environment was most favorable, as in Babylonia and Egypt, and possibly in China. The transition of man from barbarism to partial civilization in these countries probably originated at about the same time, and therefore the second lecture will be on Babylonia, where the environment is in some respects more marked than in Egypt or China. In the rich valleys of the Tigris and Euphrates men were first gathered into great cities under the rule of a despot who was above all humanity, the representative only of himself and of God. Here the family seems to have become obsolete, all rights undefined, personal and civil liberty unknown, for there were only two classes, the master and slave. Yet here we find the first great library, hanging gardens, and magnificent architecture.

This lecture will tell us of the development of the city, library, and architecture, and of the rule of the despot, and will be delivered by Mr Talcott Williams, of the Philadelphia *Press*, a gentleman born in Mesopotamia and well acquainted with the country and its inhabitants.

The third lecture will be on Syria. In Syria we have an entirely different geographic environment, developing different institutions and religious beliefs, with a nationality and history of a different type. The Semites, probably Bedouins, came from the desert of Arabia, a country as unlike the valley of the Euphrates as the people of the two countries are unlike each other. In these deserts originated the ideas of humanity and charity, and a religion tending to monotheism. The chiefs or rulers of the nomad clans were patriarchs, like Abraham and Jacob, wandering over the desert. Although their civilization was in some respects and for a long time inferior to that of the Babylonians, yet they had a love of freedom and manly character unknown in the despotisms of the Euphrates and Nile. While they estimated the value of the life of the individual higher than did the Assyrian, yet even here personal liberty, as we understand it, did not exist, as every man belonged to a family group and was subject to its head, and every family to its clan.

This lecture will trace the development of the family, monotheism, and the Jewish nation, and will be delivered by Prof. Thomas J. Shahan, LL. D., of the Catholic University of America.

The fourth lecture will be on Tyre and Sidon, cities which derived their civilization from Assyria. Here we find a third condition of environment—mountains behind, the sea in front—evolving a higher civilization.

Life on the eastern shores of the Mediterranean led the inhabitants to find in commerce prosperity, wealth, and civilization. Their ships followed along the coast, then gradually sailed out into the Mediterranean, on through the Pillars of Hercules into the Atlantic, and north to England; the ships of Tarshish sailed south, through the Red sea, into the Indian ocean, south of Africa, and they may even have circumnavigated that continent.

This lecture will show the development of commerce and shipping; the origin and growth of colonies, exemplified by Carthage, Sicily, and Spain, and will be delivered by Prof. Thomas Davidson, M. A., of Aberdeen University, Scotland.

Fifth lecture—Greece. Tyre and Sidon gave to Greece all their knowledge. There it was developed by different geographic conditions. The two great races of the world—the Semitic and the Aryan—differed in their environment as in their institutions and habits. In Syria was monotheism, in Greece unlimited polytheism. The language and country of the Grecian Aryan were more favorable than those of the Semite in Syria. Their mountains, inclosing numerous small valleys, the islands and seas of Greece, its beautiful climate and luxuriant soil, developed a people different in their institutions, their government, arts, and sciences from any that ever existed, either before or since, and gave the world the first idea of personal liberty of the individual man. As no other nation ever showed such rapid development, such early maturity, so no other people ever had such a rapid decline without renaissance.

The lecture will show the causes for this wonderful development and early decay, and will be delivered by Prof. Benjamin Ide Wheeler, LL. D., of Cornell University, Ithaca, New York, professor in the American School of Archeology at Athens, 1895-96.

Sixth lecture—Rome. The Seven Hills, one densely wooded, the river Tiber, and the rich valley and plain around made the environment of Rome, and secured Romulus and his band of freebooters from attack, while they easily invaded the country of their neighbor. In Rome the civilizations of the old world met, and from this union a broader culture was developed, upon which modern civilization was founded. By the conquest of Italy, Greece, Egypt, Syria, and Assyria, Rome obtained from each what was best adapted to its needs—arts and letters from Greece, agriculture from Egypt, commerce and colonization from Tyre; from Syria and Arabia, monotheism and science; from Assyria, imperial government. The lecture will show the conditions and causes that led to this expansion of Rome, slowly and steadily extending its dominion until it embraced in its empire the whole of the known world. From Rome came law, authority, and power, with a dominion so wide and powerful that in any part of the world a man could say with the Apostle Paul, "I am a Roman citizen," and thus secure protection. Freeman truly says: "None but those who have grasped the place of Rome in history can ever fully understand the age in which we live." By Rev. Alex. Mackay-Smith, D. D., of Washington, D. C.

Seventh lecture—Constantinople. The culture and civilization of Rome were carried to Constantinople by Constantine. The geographic position

of this city is more commanding than that of any other city. Seated on two continents, the connecting link between the Orient and Europe, mistress of the seas, glorious in situation, the desired of many nations, we behold environments which caused its rise and continued existence. We are not surprised that this city has been the seat of a government longer than any other that ever existed, and has enjoyed a continuity and concentration of imperial rule in an imperial city without parallel in the history of mankind. By Prof. Edwin A. Grosvenor, of Amherst College, Amherst, Massachusetts, formerly of Roberts College, Constantinople.

Eighth lecture—Venice and Genoa. When the rule of Constantinople passed from the Christians to the Mohammedans, on the ruins of the old world rose these two cities, fitted by their geographic environment to take up the civilization of the old world and to develop that of modern Europe—two cities unlike any other cities of Europe, each supreme within its small territory, owing no fealty to any sovereign outside its own district, each deriving power and wealth from the control of the sea. In their conditions of environment on the Mediterranean, with colonies in the Crimea and in Asia Minor, with easy access to the interior of Europe, we find the causes which led to the increase of their population and wealth, to the expansion of their commerce and their territorial possessions. When these are known we understand the part they bore in the awakening of the world from the torpor of the Dark Ages, opening the way to the new world, and to the renaissance of commerce, literature, arts, and science. By Prof. William H. Goodyear, of the Brooklyn Institute of Arts and Sciences.

Ninth lecture—America. From the Old World we pass to the New, America, where the Puritans of Plymouth and Massachusetts bay, the Knickerbockers of New Amsterdam, the Quakers of Pennsylvania, the Catholics of Baltimore, and the Royalists of Virginia all unconsciously laid the foundation of a unique empire. Their descendants have spread over the whole land and mingled with the best class of emigrants from every country of Europe, and are the progenitors of a new race. All geographic environments have become subservient to the will of the people, from ocean to ocean, from the waters of the Hudson to the waters of the gulf of Mexico, one people and one language, an American race, an empire vaster than that of Rome, home of all the nations of the world, welded into one great and free people.

The lectures will be neither historical nor scholastic treatises, but general accounts of the several nations and cities in popular language, so arranged as to show how largely their development depended on natural causes, including their geographic environment, until we come to the New World, where the environments become subservient to man and not man to his environments.

With this exception, it suffices to indicate only the general scope of the lectures, leaving to each lecturer perfect freedom to treat his subject in his own manner, ever bearing in mind the effect of geographic environment on the continuous development of civilization from one nation to another through the centuries.

GARDINER G. HUBBARD.

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## ERRATA

On page 87, the paragraph relating to Franz Josef Land should be under separate sub-caption "Polar Regions."

On page 152, for 'B. S. Payne' (Director, Oregon State Weather Bureau), read 'B. S. Pague.'

On page 181, article "The Kansas River," line 2, for 'Davis county,' read 'Geary county.'

On page 232, line 39, for 'Plate V,' read 'Plate XXVI.'

On page 238, article "A Journey in Ecuador," line 15, for 'apricots,' read 'aguacates (alligator-pears).'

On page 290, lines 3, 14, 24, 32, and 37, for 'Svendrup,' read 'Sverdrup.'

On page 345, line 2, for 'easterly,' read 'westerly.'

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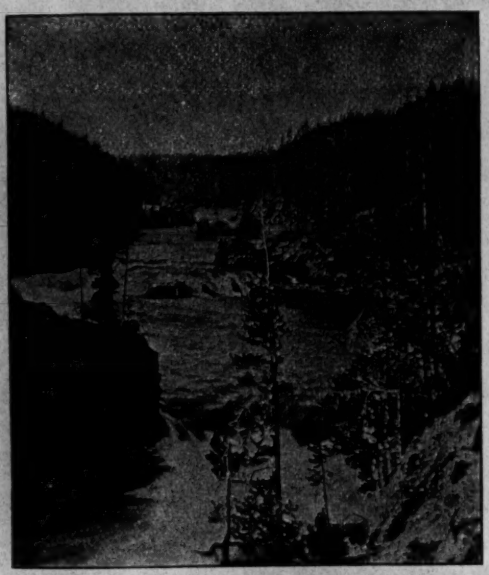

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